

WHAT IS CLAIMED IS:

1. A mobile communication network comprising:
subscriber equipment; and
a plurality of gateways having means for
communicating with said subscriber equipment;

wherein, upon receipt of a communication request from
terminal equipment, said subscriber equipment selects a
gateway corresponding to said communication request, and

wherein said gateway thus selected identifies a
communication network corresponding to said communication
request or equipment thereon, and notifies said terminal
equipment of address information regarding said selected
gateway.

2. A mobile communication network as claimed in
claim 1, further comprising service control equipment for
storing subscriber information regarding said terminal
equipment;

wherein, using said subscriber information, said
selected gateway identifies a communication network
corresponding to said communication request or equipment
thereon.

3. A mobile communication network as claimed in claim 1,

wherein, if a specific service is not indicated in said communication request, said selected gateway does not notify said terminal equipment of address information regarding said selected gateway.

4. Terminal equipment comprising:

means for issuing a communication request including an access point name to subscriber equipment in a mobile communication network;

means for receiving address information of a gateway identified by said access point name; and

means for assembling an IPv6 header and an IPv6 routing header for each packet using said address information and for sending each said packet having said IPv6 header and said IPv6 routing header.

5. Terminal equipment as claimed in claim 4,

wherein information for identifying a destination-of-connection communication network or equipment thereon is included in said communication request.

6. Terminal equipment as claimed in claim 4,

wherein, when not making a specific service request to said mobile communication network, said terminal equipment sends an ordinary IPv6 packet.

7. In a packet communication network including terminal equipment, subscriber equipment, and a gateway having means for communicating with said subscriber equipment and another communication network, a packet communication control method comprising:

providing said subscriber equipment and said gateway with means for communicating with service control equipment in which location information and service information regarding each subscriber terminal are stored;

providing said gateway with means for communicating with enterprise network equipment over another communication network;

allowing said terminal equipment to send a control signal to said gateway via said subscriber equipment for enabling information interchange with equipment on said packet communication network or another communication network;

providing said gateway with first service control means for detecting a request for communication with said enterprise network equipment from

destination-of-connection information included in said control signal received from said subscriber equipment;

providing an arrangement wherein, upon detection of said request for communication with said enterprise network equipment, said gateway sends a control signal including address information of said gateway to said subscriber equipment;

providing said subscriber equipment with second service control means for sending said control signal including address information of said gateway to said terminal equipment; and

providing said terminal equipment with third service control means for assembling an IPv6 packet in a manner that, when said terminal equipment receives said control signal including address information of said gateway, said address information of said gateway is used in creation of IPv6 header information in order for packet data from said terminal equipment to be unexceptionally transferred through said gateway; and

whereby, in transmission from said terminal equipment to said enterprise network equipment, packet data is unexceptionally transferred through said gateway.

8. A packet communication control method as claimed in claim 7,

wherein, upon receipt of said control signal including address information of said gateway from said subscriber equipment, said terminal equipment creates an IPv6 header and an IPv6 routing header using said address information of said gateway, and

wherein, at said terminal equipment, each packet to be sent from said terminal equipment is so assembled as to be unexceptionally transferred through said gateway,

whereby, in transmission from said terminal equipment to said enterprise network equipment, packet data is unexceptionally transferred through said gateway.

9. A packet communication control method as claimed in claim 7,

wherein information to be used by said gateway for identifying a destination of connection is provided in a procedure in which said subscriber equipment reads destination-of-connection information for said terminal equipment out of subscriber information regarding said terminal equipment, said subscriber information being stored in said service control equipment, and said destination-of-connection information is set in a control signal directed to said gateway, or in a procedure in which destination-of-connection information input in said terminal equipment by a user thereof is set in a control

signal directed to said subscriber equipment, and upon receiving said control signal, said subscriber equipment sets said destination-of-connection information in a control signal directed to said gateway.

10. In a packet communication network including terminal equipment, subscriber equipment and a gateway having means for communicating with said subscriber equipment and another communication network, a packet communication control method comprising:

providing said subscriber equipment and said gateway with means for communicating with service control equipment in which location information and service information regarding each subscriber terminal are stored;

providing said gateway with means for communicating with enterprise network equipment over another communication network;

allowing said terminal equipment to send a control signal to said gateway via said subscriber equipment for enabling information interchange with equipment on said packet communication network or another communication network;

providing an arrangement wherein destination-of-connection information input by a user or destination-of-connection information read out of said

service control equipment is unexceptionally included in said control signal from said subscriber equipment to said gateway;

providing said gateway with first service control means for detecting a request for communication with said enterprise network equipment from said destination-of-connection information included in said control signal received from said subscriber equipment;

providing an arrangement wherein, when said first service control means of said gateway detects said request for communication with said enterprise network equipment, said gateway sends a control signal including address information of said gateway to said subscriber equipment;

providing said subscriber equipment with second service control means for sending said control signal including address information of said gateway to said terminal equipment;

providing an arrangement wherein, when said terminal equipment receives said control signal including address information of said gateway, said terminal equipment creates an IPv6 header and an IPv6 routing header using said address information of said gateway;

providing said terminal equipment with third service control means for assembling a packet in order for packet

data from said terminal equipment to be unexceptionally transferred through said gateway;

providing an arrangement wherein, when said first service control means of said gateway does not detect said request for communication with said enterprise network equipment, said gateway sends a control signal not including address information of said gateway to said subscriber equipment, and then said subscriber equipment sends said control signal not including address information of said gateway to said terminal equipment; and

allowing said terminal equipment to send an ordinary IPv6 packet to a destination of connection when address information of said gateway is not included in a control signal received by said terminal equipment;

whereby, in transmission from said terminal equipment to said enterprise network equipment, packet data is unexceptionally transferred through said gateway, and

whereby, when said terminal equipment sends an ordinary IPv6 packet to a destination of connection, said ordinary IPv6 packet is optimally routed to said destination of connection according to routing table information held in each node equipment.

11. A gateway which is connected to a packet communication network, which is provided with means for

communicating with subscriber equipment, equipment on another packet communication network, and equipment on another communication network, and which is provided with means for communicating with service control equipment in which location information and service information regarding each subscriber terminal are stored, said gateway comprising:

means for communicating with enterprise network equipment over another communication network; and

service control means for receiving from said subscriber equipment a control signal for enabling packet data communication with a mobile terminal and for detecting a request for communication with said enterprise network equipment from destination-of-connection information included in said control signal.

12. A gateway as claimed in claim 11,

wherein, when said service control means of said gateway detects said request for communication with said enterprise network equipment, said gateway sets up a connection for said mobile terminal between said gateway and equipment for connecting said enterprise network equipment with another communication network so as to carry out communication with said enterprise network equipment.

13. A gateway as claimed in claim 11,
wherein, when said service control means of said gateway detects said request for communication with said enterprise network equipment, said gateway sends a control signal including identification information of said gateway to said subscriber equipment.

14. Subscriber equipment which is connected to a packet communication network, which is provided with means for communicating with terminal equipment, a gateway having means for communication with another communication network and another equipment in said packet communication network, and which is provided with means for communicating with service control equipment in which location information and service information regarding each subscriber terminal are stored, said subscriber equipment comprising:

means for allowing said gateway to communicate with enterprise network equipment over another communication network; and

service control means for sending a control signal to said terminal equipment;

wherein, before starting information interchange with equipment on said packet communication network or equipment on another communication network, said terminal

equipment sends a control signal for enabling packet data communication to said gateway in a predetermined procedure, wherein, upon receipt of said control signal from said terminal equipment, said gateway detects a request for communication with said enterprise network equipment from said control signal, and

wherein, when a control signal including identification information of said gateway is received from said gateway, said subscriber equipment sends said control signal including identification information of said gateway to said terminal equipment.

15. Terminal equipment comprising:

means for communicating with subscriber equipment;

and

service control means for assembling packet data;

wherein said subscriber equipment, connected to a packet communication network, is provided with means for communicating with a gateway on said packet communication network and means for communicating with service control equipment in which location information and service information regarding each subscriber terminal are stored,

wherein, before starting information interchange with equipment on said packet communication network or equipment on another communication network, said terminal

equipment sends a control signal for enabling packet data communication to said gateway in a predetermined procedure,

wherein, upon receipt of said control signal from said terminal equipment, said gateway detects a request for communication with enterprise network equipment from said control signal,

wherein said gateway sends a control signal including identification information of said gateway to said subscriber equipment, and

wherein, when said terminal equipment receives said control signal including identification information of said gateway from said subscriber equipment, said terminal equipment performs packet assembly using said identification information of said gateway so that packet data from said terminal equipment will be transferred through said gateway.